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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/646,685 | 08/25/2003 | Thomas J. Kelly | 08350.3304-04 | 9970 |

7590 10/06/2004

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| EXAMINER |
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BROADHEAD, BRIAN J

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| ART UNIT | PAPER NUMBER |
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3661

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------|------------------------------|--|
| Office Action Summary | Application No. 10/646,685 | Applicant(s) KELLY ET AL. | |
| | Examiner Brian J. Broadhead | Art Unit 3661 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>04-02-2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 through 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama, 6694235, in view of Dauner et al., 6526460.

3. Akiyama discloses detecting a first message sent by a source module on a first data link, wherein the first message is directed to a destination module and includes an address identifier corresponding to the destination module, retrieving the first message and extracting the destination address identifier from the message on lines 7-39, on column 3; detecting a first message sent by a source module on a proprietary data link on lines 43-49, on column 7; receiving a second message responsive to the first message from the second message via the second data link on lines 16-22, on column 10; and routing the second message to the first module over the first data link via second module the address map on lines 16-22, on column 10 and lines 55-67, on column 5; the nodes include at least one of either an on-board module and an off-board system (3); means for monitoring a first data link connected to a plurality of modules, each module configured to direct messages to destination modules by adding to the messages an address identifier corresponding to the destination modules, and means for intercepting at least one of the messages based on a determination that the at least

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one message is intended for a destination module for which the gateway serves as a proxy on lines 55-67, on column 8; a master controller remotely located with respect to the work machine and coupled to the work machine via a wireless data link, wherein the master controller is configured to control the modules on lines 67-67, on column 7.

4. Akiyama does not disclose routing the first message to a proxy logic element that performs functions associated with the destination module; a second data link that interfaces the proxy logic element; the second data link is a non-proprietary standard data link including one of 11939, CAN, MODBUS, serial standard data link, and the Ethernet.

5. Dauner et al. teach routing to a proxy logic element that performs functions associated with the destination module on lines 1-12, on column 2; a second data link that interfaces the proxy logic element on lines 60-63, on column 4; the second data link is a non-proprietary standard data link including one of 11939, CAN, MODBUS, serial standard data link, and the Ethernet on lines 61, on column 4. Dauner et al. teaches that the modules can be part of any of the equipment units(1-11) and that the equipment units can support any number of modules. This would include the equipment module 3, or the gateway, being able to have several modules. These several modules are viewed as proxy logic. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Dauner et al. in the invention of Akiyama because such modification would make the relay system of Akiyama readable extended and adapted to new tasks and application with comparatively little outlay as stated on lines 65-67, on column 1, of Dauner et al.

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6. The limitations "the gateway is further configured to transmit information responsive to the first message from the proxy logic element over the second data link; the gateway is further configured to receive a second message from the second data link and route, using the address map, the second message over the first data link to the source module; providing the first message from the proxy logic element to a second module over a second data link interfaced by the proxy logic element; and generating, by the proxy logic element, a second message that is responsive to the first message and routing the second message to the source module via the first data link" are all functional language that one of ordinary skill in the art would find the invention of Akiyama and Dauner et al. capable of performing.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 703-308-9033. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJB

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Thomas G. Black
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